AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act, as amended, (33 U.S.C. 1251 et seq.; the "Act") and Hawaii Revised Statutes, Chapter 342D, and Hawaii Administrative Rules, Chapters 11-54 and 11-55, Department of Health (Department), State of Hawaii,

CHEVRON U.S.A. INCORPORATED

(hereinafter "PERMITTEE"),

is authorized to discharge once-through non-contact brine well cooling water, treated process wastewater, treated contaminated storm water runoff from process areas, and storm water from its Hawaii Refinery,

located at 91-480 Malakole Road, Kapolei, Oahu, Hawaii,

to the receiving waters named Pacific Ocean at coordinates:

Outfall Serial No.	Latitude	Longitude
001	21°18'28"N	158°07'21"W
002	21°18'57"N	158°07'15"W
003	21°18'36"N	158°07'02"W
004	21°18'32"N	158°07'00"W

in accordance with the effluent limitations, monitoring requirements and other conditions set forth herein, and in the attached Department "Standard NPDES Permit Conditions," dated December 30, 2005.

All references to Title 40 of the Code of Federal Regulations (CFR) are to regulations that are in effect on July 1, 2004, except as otherwise specified. Unless otherwise specified herein, all terms are defined as provided in the applicable regulations in Title 40 of the CFR.

This permit, including the Zone of Mixing, will become effective _____.

This permit, including the Zone of Mixing, and the authorization to discharge will expire at midnight, **January 31, 2011**.

Signed this_____day of February, 2006.

_____
(For Director of Health)

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A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning with the effective date of this permit and lasting through **January 31, 2011**, the Permittee is authorized to discharge once-through non-contact brine well cooling water, treated process wastewater, and treated contaminated storm water runoff from **Outfall Serial No. 001**. The discharge of effluent in excess of the following limits is prohibited:

   a. Such discharges shall be limited and monitored as specified below (based upon a crude oil throughput daily average production of 56,400 bbl/day).

Effluent Characteristics	Discharge Limitations			Monitoring Requirements	
	Monthly Average	Daily Maximum	Units	Measurement Frequency	Sample Type
Flow	a	a	MGD	Continuous/ Recorder	N/A
BOD_5	284	511	lbs/day	Weekly	Composite
Hexavalent Chromium[b]	0.14	0.29	lbs/day	Once/Year	Composite
Total Chromium[b]	1.72	4.36	lbs/day	Once/Year	Composite
Ammonia Nitrogen (as N)	155	341	lbs/day [c]	Once/Month	Composite
Oil and Grease	83	155	lbs/day	Weekly	Grab [d]
Phenols	1.27	3.82	lbs/day	Once/2 weeks	Composite
Total Sulfide	1.5	3.36	lbs/day	Weekly [e]	Composite
Total Suspended Solids	227	356	lbs/day	Weekly	Composite
Total Organic Carbon	624	1,124	lbs/day	Once/Month	Composite
pH	Not less than 6.0 standard units or greater than 9.0 standard units [f]		pH Units	Continuous/ Recorder	Grab
Whole-Effluent Toxicity [g]	Chronic NOEC $\leq$ 42.0 TU_c , or, Acute LC_{50} $\geq$ 71.4 % (acute toxicity testing applicable only up to three (3) years after the effective date of this permit)			Semiannually	Grab
Total Nitrogen	N/A	a	ug/l	Once/Quarter	Grab
Nitrate + Nitrite Nitrogen	N/A	a	ug/l	Once/Quarter	Grab
Total Phosphorus	N/A	a	ug/l	Once/Quarter	Grab
Silica	N/A	a	ug/l	Once/Quarter	Grab

N/A - Not Applicable

NOEC - No Observed Effect Concentration, is the highest tested concentration of an effluent at which no adverse effects are observed on the aquatic test organisms at a specific time of observation (EPA/505/2-90-001, March 1991).

[a] - Monitoring and reporting required, no limitation at this time.

[b] - Compliance with these limitations shall be determined by monitoring the process wastewater before combining with the cooling water.

[c] - Also report ammonia nitrogen monitoring results as ug NH_4-N/L.

[d] - For O&G samples only, grab shall be the average of a minimum of four (4) discrete samples taken at equal time intervals over a period of one (1) hour.

[e] - Upon compliance with the weekly monitoring four (4) consecutive times, the monitoring shall be reduced to once per month. If after such a reduction in monitoring frequency the Permittee violates the total sulfide limit, the monitoring frequency shall automatically return to weekly. The Department of Health reserves the right to require that weekly monitoring be performed, if lower test detection levels becomes available and/or as determined appropriate.

[f] - If the Permittee continuously measures the pH of the discharge, the Permittee shall maintain the pH within the pH effluent limitation range specified at Part A.1.a of this permit, except excursions (unintentional and temporary incidents) from the range shall be permitted subject to the following limitations in accordance with 40 CFR 401.17:
(1) The total time during which the pH values are outside the required range of pH values shall not exceed seven (7) hours and 26 minutes in any calender month; and
(2) No individual excursion form the range of pH values shall exceed 60 minutes.
However, if more than two (2) consecutive calender months of monitoring results with pH excursions as specified above occurs, the Director reserves the right to retract this provision and require the Permittee to pursue the elimination of the pH excursion, and continuously comply with the pH effluent limitation at Part A.1.a of this permit.

[g] - No later that three (3) years from the effective date of this permit, the Permittee shall demonstrate compliance with the whole effluent toxicity requirement by using the chronic toxicity test only.

b. The Permittee shall conduct the effluent sampling on the same day that the receiving water monitoring is conducted unless inclement weather or hazardous conditions exist which may endanger the lives of the Permittee's personnel.

c. Whole-Effluent Toxicity Monitoring

Whole-Effluent Toxicity Monitoring shall be conducted in accordance with the provisions of Part B of this permit.

A. (EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS CONTINUED)

2. During the period beginning with the effective date of this permit and lasting through **January 31, 2011**, the Permittee is authorized to discharge once-through non-contact brine well cooling water from **Outfall Serial No. 002**. The discharge of effluent in excess of the following limits is prohibited:

   a. Such discharges shall be limited and monitored as specified below (based upon a crude oil throughput daily average production of 56,400 bbl/day).

Effluent Characteristics	Discharge Limitations			Monitoring Requirements	
	Monthly Average	Daily Maximum	Units	Measurement Frequency	Sample Type
Flow	a	a	MGD	Continuous/ Recorder	N/A
Temperature	a	a	^{o} C	Weekly	Grab
Total Organic Carbon	5	5	mg/l	Weekly	Composite
pH	Not less than 6.0 standard units or greater than 9.0 standard units		pH Units	Weekly	Grab
Whole-Effluent Toxicity	70% mean fertilization or 80 % survival in 100% effluent			Semiannually	Grab
Total Nitrogen	N/A	a	ug/l	Once/Quarter	Grab
Nitrate + Nitrite Nitrogen	N/A	a	ug/l	Once/Quarter	Grab
Total Phosphorus	N/A	a	ug/l	Once/Quarter	Grab
Silica	N/A	a	ug/l	Once/Quarter	Grab

N/A - Not Applicable

[a] - Monitoring and reporting required, no limitation at this time.

   b. The Permittee shall conduct the effluent sampling on the same day that the receiving water monitoring is conducted unless inclement weather or hazardous conditions exist which may endanger the lives of the Permittee's personnel.

   c. Whole-Effluent Toxicity Monitoring

      Whole-Effluent Toxicity Monitoring shall be conducted in accordance with the provisions of Part B of this permit.

3. DISCHARGE LIMITATIONS FOR TREATED CONTAMINATED STORM WATER RUNOFF FROM PROCESS AREAS.

   a. The quantity of pollutants discharged (lbs/day) shall not exceed the quantity determined by multiplying the flow of contaminated runoff times the limits listed below:

		Monthly Average lbs/1,000 gallons	Daily Maximum lbs/1,000 gallons
BOD_5		0.22	0.40
Total Suspended Solids		0.18	0.28
Oil and Grease		0.067	0.13
Phenols		0.0014	0.0029
Total Chromium		0.0018	0.0050
Hexavalent Chromium		0.00023	0.00052
Total Organic Carbon	0.484	0.88	

Treated rainwater rate is to be calculated as follows:

$$\text{Gal. of rainwater} = A \times \frac{7.48 \text{ gal/ft}^3}{12 \text{ in/ft}} \times (B_1C_1 + B_2C_2)$$

where:

A = Measured Average Rainfall for the Month at the Campbell Industrial Park Station, in/Day

B_1 = Paved Process Area Runoff = 1,455,600 ft^2

B_2 = Unpaved Nonprocess Area Runoff = 4,781,700 ft^2

C_1 = Runoff Coefficient for Paved Area = 1.0

C_2 = Runoff Coefficient for Unpaved Area = 0.4

   b. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units.

4. Effluent Limitations and Monitoring Requirements for Storm Water Runoff discharged from **Outfall Serial Nos. 003 and 004**.

   a. Storm Water Pollution Control Plan (SWPCP)

      The Permittee shall:

      (1) Continue to implement the SWPCP dated January 15, 2004, and subsequent submittals (if applicable), until the Permittee develops and submits the updated SWPCP to the Director of Health (Director).

      (2) Submit an updated SWPCP within 90 days after the effective date of this permit.

      (3) Implement the updated SWPCP upon its submittal to the Director.

      (4) Review and update the SWPCP, as often as needed toward improving the storm water quality and/or control practices, or, as required by the Director.

      (5) Report any changes to the SWPCP to the Director within 30 days from the date the changes were made.

      (6) Maintain a copy of the SWPCP and documentation of all amendments, as applicable, at the facility.

   b. Samples shall be collected from a discharge resulting from a representative storm. A representative storm means a rainfall that accumulates more than 0.1 inch of rain and occurs at least seventy-two hours after the previous measurable (greater than 0.1 inch) rainfall.

   c. For storm water monitoring in accordance with Parts A.4.d and A.4.e, only:

      Samples for analysis shall be collected during the first15 minutes of the discharge and at 15-minute intervals thereafter for the duration of the discharge. If the discharge lasts for over an hour, sample collection may cease.

      The sample collected during the first 15 minutes shall be analyzed as a grab sample. If two or more samples are collected, they shall be analyzed as a composite sample.

      "Composite sample" means a combination of at least two (2) sample aliquots, collected at periodic intervals. The composite must be flow proportional; either the time interval between each aliquot or the volume of each aliquot must be proportional to either the flow at the time of sampling or total flow since the collection of the previous aliquot. Aliquots may be collected manually or automatically.

d. Monitoring Methods

(1) Conduct monitoring in accordance with test procedures approved under 40 CFR Part 136, or unless otherwise specified, with detection limits low enough to measure compliance with the discharge limitations specified in Part A.4.f. For cases where the discharge limitation is below the lowest detection limit of the appropriate test procedure, the Permittee shall use the test method with the lowest detection limit.

(2) The Director may specify additional monitoring requirements and limitations, in addition to the monitoring requirements specified in Part A.4.f of this permit.

e. Such storm water runoff associated with industrial activity shall be limited and monitored as follows:

MINIMUM MONITORING REQUIREMENTS

Parameter	Discharge Limitation {1}	Measurement Frequency	Sample Type
Flow (MGD)	{2}	Annually	Calculated or Estimated
Biochemical Oxygen Demand (5-Day) (mg/l)	{2}	Annually	Grab/Composite
Chemical Oxygen Demand (mg/l)	{2}	Annually	Grab/Composite
Total Suspended Solids (mg/l)	{2}	Annually	Grab/Composite
Total Phosphorus	{2}	Annually	Grab/Composite
Total Nitrogen	{2}	Annually	Grab/Composite
Nitrate + Nitrite Nitrogen	{2}	Annually	Grab/Composite
Oil and Grease	15	Annually	Grab
pH Range [3]	7.0 to 8.6 (Standard Unit)	Annually	Grab

{1} Pollutant concentration levels shall not exceed the effluent limits or be outside the ranges indicated in the above table. Actual or measured levels which exceed those effluent limits or are outside those ranges shall be reported to the Director as required in Part E of this permit.

{2} No Limitation at this time. Only monitoring and reporting required.

{3} The Permittee may determine compliance for pH by either monitoring the effluent or performing receiving water monitoring. Receiving water monitoring shall be performed at the point where the discharge initially mixes with the receiving water. It shall be a violation of this permit if the monitoring results exceed the effluent discharge limitation. However, if the Permittee can prove that the discharge is not causing impairment of the receiving water's pH, then the exceedance(s) will not be considered a violation of this permit. In order to substantiate such a claim, the Permittee must at a minimum submit data from a control station which has been approved by the Director with the Discharge Monitoring Reports.

B. WHOLE-EFFLUENT TOXICITY REQUIREMENTS

1. Chronic Toxicity

The Permittee shall conduct semi-annual chronic toxicity tests on grab samples.

a. Test Species and Methods

The Permittee shall conduct semi-annual tests with the tropical sea urchin, *Tripneustes gratilla*, using the following methods. The Permittee shall use updated versions of these methods as they become available:

(1) Hawaiian Collector Urchin, *Tripneustes gratilla* (Hawa'e) Fertilization Test Method (Adapted by Amy Wagner, U.S. EPA, Region 9 Laboratory, Richmond, CA from a method developed by George Morrison, U.S. EPA Naragansett, RI and Diane Nacci, Science Applications International Corporation, ORD Naragansett, RI), 1998.

Important information for conducting this method (e.g., test acceptability criteria, data analysis, etc.), can be found in the *Arabacia punctulata* section of Short-Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Waters to Marine and Estuarine Organisms (EPA-821-R-02-014, October 2002 or subsequent editions).

(2) The Permittee may temporarily conduct the whole-effluent toxicity testing using the one (1) currently suitable locally available species (i.e., *Tripneustes gratilla*) until such time that additional local species are authorized for use under this permit. Upon the establishment of additional suitable locally available species, the Permittee shall then be required to perform the whole-effluent toxicity testing using two (2) local species. The incorporation of the provisions for the use of the additional whole-effluent toxicity locally available species into this permit shall be considered a minor modification for the purpose of 40 CFR Part 124.

(3) If the locally available species, *Tripneustes gratilla*, becomes unavailable for whole-effluent toxicity testing the Permittee, and/or, upon obtaining written approval from the Director, the Permittee may conduct chronic toxicity testing on two (2) mainland species found in the EPA Methods manual referenced below:

Short-Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Waters to West Coast Marine and Estuarine Organims (EPA-600-R-95-136, August 1995 or subsequent editions).

b. Alternative Acute Toxicity Testing

(1) Outfall Serial No. 001 Temporary Acute Toxicity Testing Option

If the Permittee provides proper notification and obtains written approval from the Director, the Permittee may alternatively conduct the Outfall Serial No. 001 whole-effluent testing toxicity using acute toxicity tests on two (2) mainland species found in the EPA methods manual specified below, at Part B.1.b.(3) of this permit, on a temporary basis for a period no longer than three (3) years after the effective date of this permit. Three (3) years after the effective date of this permit the Permittee shall demonstrate compliance with the whole-effluent toxicity requirement using chronic toxicity testing only, as specified above at Part B.1.a of this permit. This temporary allowance of the Permittee to conduct the whole-effluent toxicity testing using acute tests is contingent on the Permittee performing concurrent continuous efforts (which includes, but is not limited to, conducting studies, additional treatment or practices) to comply with the chronic toxicity testing limitation, and, may be revoked at any time by Director. The Permittee shall submit by January 30 of each year, a status report of the Permittee's efforts performed toward attaining compliance with the chronic whole-effluent toxicity limitation, as applicable.

(2) Outfall Serial No. 002 Alterative Acute Toxicity Testing

If the Permittee provides proper notification and obtains written approval from the Director, the Permittee may alternatively conduct the Outfall Serial No. 002 whole-effluent toxicity testing using acute toxicity tests on two (2) mainland species found in the EPA methods manual specified below at Part B.1.b(3) of this permit.

(3) Test Species and Methods

The Permittee shall conduct the acute toxicity tests using the following method. The Permittee shall use the updated version of these methods as they become available:

Methods for Measuring the Acute Toxicity of Effluent and Receiving Waters to Freshwater and Marine Organisms (EPA-600-4-90-027F, August 1995 or subsequent editions).

c. Definition of Toxicity

(1) Outfall Serial No. 001

(a) Whole-Effluent Toxicity Limitation: Toxicity is defined as greater than 42.0 TU_c for chronic NOEC tests. For a period up to three (3) after the effective date of this permit, toxicity may also temporarily be defined as less than 71.4 % effluent for acute LC_{50}

toxicity tests.

(b) The chronic No Observed Effect Concentration (NOEC) is inversely related to the Toxic Unit Chronic (TU_c) representation, and is translated to TU_c by dividing 100 with the NOEC (i.e., 100/NOEC). Lethal Concentration 50 (LC_{50}) is the point estimate of the effluent concentration that would be lethal to 50 percent of the test organisms during a specific period (EPA/505/2-90-001, March 1991).

(2) Outfall Serial No. 002

(a) Whole-Effluent Toxicity Limitation: Toxicity is defined as less than 70 % mean fertilization, or, 80 % Survival, in 100 % effluent.

(b) Because effluent dilutions are not required for this testing, 100% effluent shall be tested with a seawater control (and brine control, if necessary). A t-test should be conducted to determine a statistically significant difference between the seawater and brine control.

d. Quality Assurance

(1) A series of five (5) dilutions and a control shall be tested as part of the Outfall Serial No. 001 whole-effluent toxicity monitoring requirements. The series shall include the instream waste concentration (IWC), two (2) dilutions below the IWC, and two (2) dilutions above the IWC (e.g., 12.5, 25, 50, 75, and 100 percent effluent, where in this example the IWC = 50). The chronic IWC for this discharge shall be 2.38 percent effluent.

(2) Concurrent testing with reference toxicants shall be conducted as part of the Outfall Serial Nos. 001 and 002 WET monitoring.

(3) Reference toxicant tests shall be conducted using the same test conditions as effluent toxicity tests (i.e., same test duration, etc.).

(4) If either the reference toxicant tests or the effluent tests do not meet all test acceptability criteria as specified in the test methods, then the Permittee must re-sample and re-test within 14 days.

(5) Control and dilution water should be receiving water or lab seawater, as described in the test methods. To maintain acceptable salinity when conducting tests with *Tripneustes gratilla*, effluent dilutions can be adjusted by adding hypersaline brine/GP2 salts and a second control using brine shall also be tested.

2. Toxicity Reduction Evaluation

a. Preparation of Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan

The Permittee shall (re)submit to the Director and USEPA an initial investigation TRE workplan (approximately 1-2 pages) within 90 days of the effective date of this permit. This workplan shall describe steps which the Permittee intends to follow in the event that toxicity (i.e., exceedence of whole-effluent toxicity limitation) is detected, and should include at minimum:

(1) A description of the investigation and evaluation techniques that would be used to identify potential causes/sources of toxicity, effluent variability, treatment system efficiency;

(2) A description of the facility's method of maximizing in-house treatment efficiency, good housekeeping practices, and a list of all chemicals used in operation of the facility;

(3) Identification of the organization (e.g., contract laboratory, etc.) that will conduct the evaluation if a Toxicity Identification Evaluation (TIE) becomes necessary.

b. Additional (Accelerated) Toxicity Testing

(1) If the Permittee violates the whole-effluent toxicity limitation, the Permittee, at a minimum, shall conduct six (6) additional tests: one (1) approximately every 14 days, over a 12-week period (or as applicable for more than six (6) tests). Effluent sampling for the first test of the six (6) additional tests shall commence within approximately 24 hours of receipt of the test results exceeding the toxicity discharge limitation.

(2) The Permittee shall continue the additional toxicity testing required by Part B.2.b.(1) of this permit until the Permittee has complied with the whole-effluent toxicity limitation six (6) consecutive times. Then the Permittee shall conduct the whole-effluent toxicity monitoring on a monthly basis, unless a reduction of the monitoring frequency is approved by the Director in accordance with Part B.6 of this permit.

(3) However, *if implementation of the initial investigation TRE workplan indicates the source of the toxicity* (e.g., a temporary plant upset, etc.), then the Permittee shall conduct only the first test of the six (6) additional tests required above. If toxicity (as defined) is not detected in this first test, the Permittee may return to the normal sampling frequency required in Part B.1 of this permit. If toxicity (as defined) is detected in this first test, then Part B.3 of this permit shall apply.

(4) If a Toxicity Reduction Evaluation/Toxicity Identification Evaluation

(TRE/TIE) is initiated prior to completion of the accelerated testing schedule required in Part B.2.b.(2) of this permit, then accelerated testing may be terminated, or used as necessary in performing the TRE/TIE, as determined by the Director and USEPA. At that time, the Permittee shall conduct monthly toxicity testing . This monthly toxicity testing shall use, as directed by the Director and USEPA, either *Tripneustes gratilla* or a species in the most recent edition of USEPA's Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms. If acute toxicity testing is being performed then the monthly toxicity testing shall use, as directed by the Director and USEPA, a species in the most recent edition of USEPA's Methods for Measuring the Acute Toxicity of Effluent and Receiving Waters to Freshwater and Marine Organisms, as applicable.

3. Toxicity Reduction Evaluation/Toxicity Identification Evaluation (TRE/TIE)

   a. If toxicity (as defined) is detected in any of the six (6) additional tests, then, based on an evaluation of the test results and additional available information, the Director and USEPA may determine that the Permittee shall initiate a TRE, in accordance with the Permittee's initial investigation TRE workplan and Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants (EPA 833-B-99-002, 1999). Moreover, the Permittee shall develop a detailed TRE workplan which includes:

      (1) Further actions to investigate/identify the cause(s) of toxicity;

      (2) Actions the Permittee has taken/will take to mitigate the impact of the discharge, to correct the noncompliance, and to prevent the recurrence of toxicity;

      (3) A schedule under which these actions will be implemented;

      and shall submit this workplan to the Director and USEPA for approval.

   b. As part of this TRE process, the Permittee may initiate a TIE using the test methods manuals, EPA/600/6-91/005F (Phase I freshwater), EPA/600/R-96/054 (Phase I; marine), EPA/600/R-92/080 (Phase II), and EPA/600/R-92/081 (Phase III), to identify the cause(s) of toxicity.

   c. If a TRE/TIE is initiated prior to completion of the accelerated testing schedule required by Part B.2.b(2) of this permit, then, upon approval by the Director and USEPA, the accelerated testing schedule may be modified or used as necessary in performing the TRE/TIE.

4. Reporting

   a. The Permittee shall submit a full report of toxicity test results, including any toxicity testing required by Parts B.2.b and B.3 of this permit, with the

Discharge Monitoring Report (DMR) in accordance with Part D.1 of this permit for the quarter or month (when Parts B.2.b and/or B.3 is/are applicable) in which the toxicity tests are conducted. A full report shall consist of: one (1) toxicity test results, including calculated sperm to egg ratio; (2) dates of sample collection and initiation of each toxicity test; and three (3) whole effluent toxicity limitation. Toxicity test results shall be reported according to the test methods manual chapter on Report Preparation.

b. Any violation of the whole-effluent toxicity limitation shall be reported in accordance with Part D.2 of this permit.

c. If the initial investigation TRE workplan is used to determine that additional (accelerated) toxicity testing is not required, in accordance with Part B.2.b.(3) of this permit, then these results shall be submitted with the DMR for the month in which investigations conducted under the TRE Workplan occurred.

d. Within 14 days of receipt of test results exceeding the whole effluent toxicity limitation, the Permittee shall provide written notification to the Director and USEPA:

(1) Findings of the TRE or other investigation to identify the cause(s) of toxicity;

(2) Actions the Permittee has taken/will take, to mitigate the impact of the discharge and to prevent the recurrence of toxicity;

(3) When corrective actions, including a TRE, have not been *completed*, a schedule under which corrective actions will be implemented; or

(4) The reason for not taking corrective action, if no action has been taken.

5. Reopener

This permit may be modified, in accordance with 40 CFR122 and 124, to include conditions or limits to address demonstrated effluent toxicity based on newly available information.

6. Sampling Frequency Reduction

If, after 24 continuous monthly sampling as specified under Part B.2.b(2) and the Permittee has not violated the toxicity limit, the Permittee may request a reduction in monitoring frequency. Any such reduction of the monitoring frequency must be approved by the Director in writing, and shall be at the Director's sole discretion. A reduction in frequency to not less than semiannually shall be considered a minor modification for the purpose of 40 CFR Part 124. If, after such a reduction in monitoring frequency, the Permittee violates the toxicity limit, the routine monitoring frequency shall automatically return to once per month until the expiration of the permit. Nothing in this paragraph waives any remedy or penalty

applicable under Hawaii Revised Statutes, Chapter 342D.

C. ZONE OF MIXING (ZM-202)

The establishment of this Zone of Mixing is subject to the following conditions:

1. The Zone of Mixing granted will be the water area of the Pacific Ocean, described as the area of radius 1,500 meters (4,875 feet) about the Outfall Serial No. 001 discharge located at coordinates: Latitude 21°18'28.2"N, Longitude 158°07'21.5"W.

2. The Zone of Mixing granted is for the assimilation of the following types of process wastewaters, at any one time: Municipal water; Non-contact brine well cooling water; On-site brine well water for sodium zeolite softener regeneration; Rainfall; Water received with crude oil shipments; Ship ballast water; Seawater used in oil displacements of the marine terminal transfer pipeline; Tank hydrotest water; Tank waterdraws from oil recovery tanks (on and off-site); Water generated by purging groundwater wells; Chevron marketing operations: tank waterdraws, washdown water from terminals and service stations, tank washdown from cleaning, and groundwater cleanup wastewater; Oil contaminated water from an oil spill; Process sample analysis residuals and laboratory equipment cleaning water; Maintenance area cleaning washdown which may contain minor amounts or cleaners and degreasers; and, Fire Training area water.

3. The discharge of wastes from Outfall Serial No. 001 shall not cause any water quality standards set forth in Hawaii Administrative Rules (2004), Chapter 11-54 to be exceeded, including basic water quality criteria, except that the specific water quality criteria set forth in the table below may be exceeded within the Zone of Mixing.

"Class A" "Dry" "Open Coastal Waters"

Parameter	Geometric mean not to exceed the given value	Not to exceed the given value more than 10% of the time	Not to exceed the given value more than 2% of the time
Total Nitrogen (ug N/L)	110.00	180.00	250.00
Ammonia Nitrogen (ug NH_4-N/L)	2.00	5.00	9.00
Nitrate+Nitrite Nitrogen (ug[NO_3+NO_2]-N/L)	3.50	10.00	20.00
Total Phosphorus (ug P/L)	16.00	30.00	45.00
Chlorophyll a (ug/L)	0.15	0.50	1.00
Turbidity (NTU)	0.20	0.50	1.00

pH units - Shall not deviate more than 0.5 units from a value of 8.1

Temperature - Shall not vary more than 1°C from ambient conditions.

Salinity - Shall not vary more than 10% from natural or seasonal changes considering hydrologic input and oceanographic factors.

4. Receiving Water Monitoring

A total of seven (7) stations, at a minimum, within and along the Zone of Mixing shall be monitored as noted below and the results included in the monthly DMRs.

The location of the monitoring stations shall be, at a minimum: one (1) at the point of discharge, two (2) at 2,000 feet radius from the discharge point, and four (4) along the edge of the Zone of Mixing. Top and middle samples of the monitoring stations water columns greater than 10 meters in depth shall be taken. At monitoring stations with water depths equal to or less than 10 meters, top and bottom samples of the water column shall be taken. Note: Top is one (1) meter below the ocean surface; middle is mid depth; and bottom is one (1) meter above ocean bottom. An acceptable method to locate the positions of the monitoring stations shall be utilized.

The Permittee shall conduct the receiving water monitoring on the same day that the effluent monitoring is conducted unless inclement weather or hazardous conditions exist which may endanger the lives of the Permittee's personnel.

a. Zone of Mixing Specific Criteria Parameters Monitoring

Total nitrogen, ammonia nitrogen, and nitrate + nitrite nitrogen shall be monitored at all monitoring stations. Total phosphorus, chlorophyll a, turbidity, pH, temperature, salinity and silica shall be monitored only at the stations located along the edge of the Zone of Mixing and the control stations.

It shall be a violation of this permit if the monitoring results exceed the specific criteria for Class A Dry Open Coastal Waters in Part C.3 at the boundary of or outside the Zone of Mixing.

Parameter	Type of Sample	MONITORING FREQUENCY Zone of Mixing Stations	Control Stations
Total Nitrogen (ug N/L)	Grab	Once/Quarter	Once/Quarter
Ammonia Nitrogen (ug NH_4-N/L)	Grab	Once/Quarter	Once/Quarter
Nitrate+Nitrite Nitrogen (ug [NO_3+NO_2]-N/L)	Grab	Once/Quarter	Once/Quarter
Total Phosphorus (ug P/L)	Grab	Once/Quarter*	Once/Quarter
Chlorophyll a	Grab	Once/Quarter*	Once/Quarter
Turbidity (NTU)	Grab	Once/Quarter*	Once/Quarter
pH (pH Units)	Grab	Once/Quarter*	Once/Quarter
Temperature (°C)	In-Situ	Once/Quarter*	Once/Quarter
Salinity (ppt)	Grab	Once/Quarter*	Once/Quarter
Silica (ug/L)	Grab	Once/Quarter*	Once/Quarter

* - Monitoring shall be performed only at the stations located along the edge of the Zone of Mixing.

5. The Department shall be notified immediately of any change that may have any adverse effects on the receiving waters from the normal conditions for which this Zone of Mixing is granted.

6. Beginning the effective date of this permit, the receiving water biological communities shall be monitored at least once per year. The monitoring performed shall include the diversity and distribution of the bottom biological communities. On January 28th of each year, a report summarizing the bottom biological communities monitoring performed during the past 12 months shall be submitted to the Department. For the first calendar year of permit issuance, the associated report shall summarize the biological communities monitoring performed during the remaining months in the year, upon obtaining program approval. A program of research to develop reasonable alternatives to the methods of treatment or control in use may be required if research is deemed prudent by the Director. This monitoring requirement may be waived upon demonstrating to the Director, of with the concurrence of the U.S. Environmental Protection Agency, that the discharge does not impact the existing bottom biological communities; or, no bottom biological communities exist in the receiving water.

D. REPORTING REQUIREMENTS

1. Transmittal and Monitoring Results Reporting Requirements

   a. Certification of Transmittals

      Submit all information in accordance with HAR, Section 11-55-07(b), with the following certification statement by an appropriate signatory:

      "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations."

   b. Include "NPDES Permit No. **HI 0000329**" on each transmittal.

      Failure to provide the assigned permit number for this facility on future correspondence or transmittals may be a basis for delay of the processing of the document(s).

   c. Reporting of Discharge and Monitoring Results

      (1) Monitoring results shall be reported on a discharge monitoring report DMR form (EPA No. 3320-1). The results of all monitoring required by this permit shall be submitted in a format which allows direct comparison with the limitations in Part A and other requirements of this permit.

      (2) Monitoring reports shall be postmarked no later than the 28th day of the month following the completed reporting period.

      (3) Should there be no discharges during the monitoring period, the Discharge Monitoring Report form shall so state.

   d. Additional Monitoring by the Permittee

      If the Permittee monitors any pollutant at location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified in 40 CFR Part 136, the results of such monitoring shall be included in the calculation and reporting of the values required in the discharge monitoring report form. The increased frequency shall also be indicated.

e. Reports Submittal

Duplicate signed copies of monitoring and all other reports required by this permit, shall be submitted to the Regional Administrator and the Director at the following addresses or as otherwise specified:

Regional Administrator
U.S. Environmental Protection
Agency, Region 9
Water Division, (WTR-7)
CWA Compliance Office
75 Hawthorne Street
San Francisco, CA 94105

Director of Health
Department of Health
Environmental Management Division
Clean Water Branch
919 Ala Moana Boulevard
Room 301
Honolulu, HI 96814-4920

2. Reporting of Noncompliance, Unanticipated Bypass, or Upset

In case of conflict between the conditions stated here and those in the "Standard NPDES Permit Conditions" the more stringent conditions shall apply.

a. Immediate Reporting

(1) The following events must be reported immediately:

(a) Any noncompliance or discharge which may endanger health or the environment;
(b) Any discharge at a location not authorized by the permit;
(c) Any discharge of any pollutant(s) or pollutant(s) at quantities not identified in the application filed for the NPDES permit;
(d) Any unanticipated bypass;
(e) Any upset; and
(f) Violation of any effluent discharge limitation.

The Permittee or its duly authorized representative (40 CFR 122.22) shall immediately report orally the occurrence of any of the events listed above in accordance with Part D.2.a.(2) at the time they become aware of the circumstances.

(2) Oral Reporting

The Permittee or its duly authorized representative shall provide oral reports by telephone to the Clean Water Branch at (808) 586-4309 during regular office hours. Outside of regular office hours, the Permittee or its duly authorized representative shall report orally to the Hawaii State Hospital Operator at (808) 247-2191.

(3) Written Reporting

A written submission shall also be provided within five (5) days of the time the Permittee becomes aware of the circumstances. The written submission shall contain:

(a) A description of the noncompliance and its cause;

(b) The period of noncompliance, including exact dates and times;

(c) If the noncompliance has not been corrected, the anticipated time it is expected to continue; and

(d) Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The Director may waive the written report on a case-by-case basis if the oral report has been received within twenty-four hours.

b. 24 Hour Reporting

The Permittee or its duly authorized representative shall orally report any other noncompliance as described in Part D.2.a.(2) within 24 hours of the time the Permittee or its duly authorized representative becomes aware of the circumstances. Written submission shall be as described above in Part D.2.a.(3). The Director may waive the written report on a case-by-case basis.

3. Planned Changes

Any planned physical alterations or additions to the permitted facility, not covered by Standard Condition 16.a.(1), (2) or (3) shall be reported to the Director on a quarterly basis.

4. Types of Sample

a. "Grab sample" means an individual sample collected at a randomly-selected time over a period not exceeding 15 minutes.

b. "Composite sample" means a combination of at least eight (8) sample aliquots, collected at periodic intervals during the operating hours of facility over a 24-hour period. The composite must be flow proportional; either the time interval between each aliquot or the volume of each aliquot must be proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot. Aliquots may be collected manually or automatically.

E. OTHER REQUIREMENTS

1. Schedule of Submission

   a. Effluent and Receiving Water Monitoring Program

      (1) Effluent Monitoring Program

      The Permittee shall submit an Effluent Monitoring Program which complies with Part A of this permit to the Director for approval within 30 days after the issuance date of this permit.

      (2) Receiving Water Monitoring Program

      The Permittee shall submit a Receiving Water Monitoring Program which complies with Part C.4. of this permit to the Director for approval within 30 days after the effective date of this permit.

      (3) The Programs(s) shall include at a minimum, but not be limited to, the following:

      (a) Sampling location map;
      (b) Sample holding time;
      (c) Preservation techniques;
      (d) Test method and method detection level; and
      (e) Quality control measures.

      The Department reserves the right to require the Permittee to revise the approved program, as appropriate, pursuant toward compliance with the terms and conditions of this permit.

      Monitoring shall be conducted according to test procedures approved under 40 CFR 136 with detection limits low enough to measure the compliance with Parts A and C of this permit. For cases where the discharge limitation is below the lowest detection limit of the appropriate test procedure, the compliance shall be based upon the lowest detection limit of the method.

      If a test method has not been promulgated for a particular constituent, the Permittee may use any suitable method for measuring the level of the constituent in the discharge provided the Permittee submit a description of the method or a reference to a published method.

   b. The Permittee shall submit to the Director by January 31st of each year, a report of the previous calendar year's monthly average production of crude throughput in barrels/day.

c. Within 60 days after the effective date of this permit, the Permittee shall submit a receiving water bottom biological communities monitoring program detailing the requirements in accordance with Part C.6 to the Director for approval.

d. The Permittee shall submit a whole-effluent toxicity initial investigation toxicity workplan in accordance with Part B.3.a to the Director and EPA Region 9 within 90 days after the effective date of the permit.

e. Within 90 days after the effective date of this permit, the Permittee shall submit an updated SWPCP in accordance with Part A.2.a to the Director.

2. Schedule of Maintenance

The Permittee shall submit a schedule for approval by the Director at least 14 days prior to any maintenance of facilities which might result in exceedance of effluent limitations. The schedule shall contain a description of the maintenance and its reason; the period of maintenance, including exact dates and times; and steps taken or planned to reduce, eliminate, and prevent occurrence of noncompliance.

3. Onshore or Offshore Construction

This permit does not authorize or approve the construction of any onshore or offshore physical structures or facilities or the undertaking of any work in any waters of the United States.

4. Remedy or Penalty

Nothing in this permit waives any remedy or penalty applicable under Hawaii Revised Statutes, Chapter 342D.

F. LOCATION AND ZONE OF MIXING MAP

(See Figure 1)

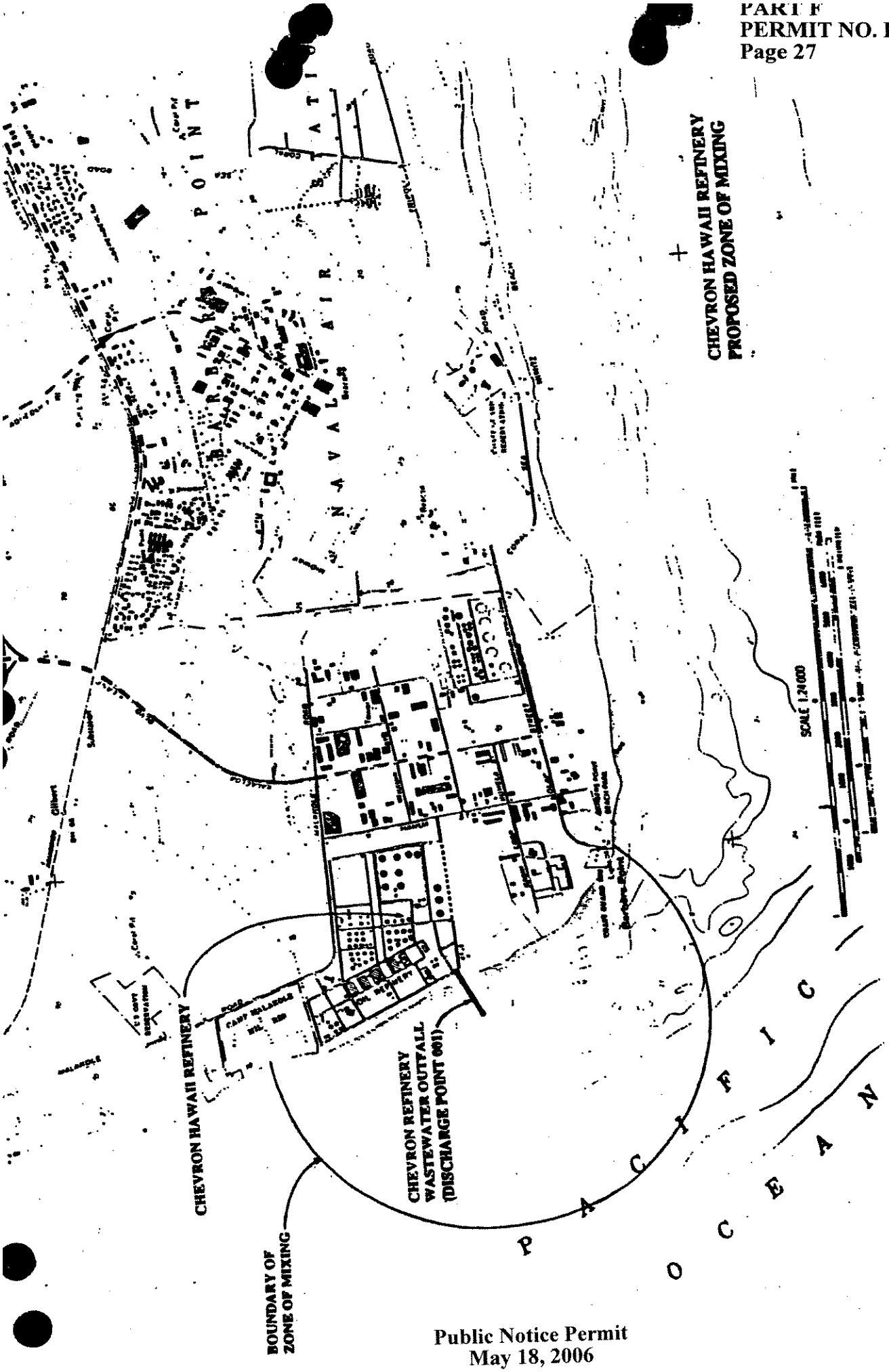
CHEVRON HAWAII REFINERY
PROPOSED ZONE OF MIXING
POINT
NAVAL AIR
SCALE 1:24000
CHEVRON HAWAII REFINERY
CHEVRON REFINERY
WASTEWATER OUTFALL
(DISCHARGE POINT 001)
BOUNDARY OF
ZONE OF MIXING
PACIFIC
OCEAN

Figure 1